Programme specification

(Notes on how to complete this template are provide in Annexe 3)

1. Overview/ factual information

Programme/award title(s)	BSc (Hons) Computer Science
Teaching Institution	American College of Thessaloniki
Awarding Institution	The Open University (OU)
Date of first OU validation	2016
Date of latest OU (re)validation	2022
Next revalidation	-
Credit points for the award	360
UCAS Code	n/a
HECoS Code	n/a
LDCS Code (FE Colleges)	n/a
Programme start date and cycle of starts if appropriate.	September 2022
Underpinning QAA subject benchmark(s)	https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-computing.pdf?sfvrsn=ef2c881_10
Other external and internal reference points used to inform programme outcomes. For apprenticeships, the standard or framework against which it will be delivered.	*https://www.bcs.org/media/1209/accreditation-guidelines.pdf* *https://www.acm.org/binaries/content/assets/education/curricula-recommendations/cc2020.pdf*

	https://www.neche.org/wp-content/uploads/2020/12/Standards-for-Accreditation-2021.pdf https://www.open.ac.uk/courses/computing-it/degrees *Review of selective Computer Science programs in Greece, the U.K. and the U.S. was undertaken by the Division's faculty were consulted in the design of the program. In addition BCS, ACM and ABET programme guidelines were reviewed by the program leads for general guidelines and future direction of the program.*
Professional/statutory recognition	Professional rights in Greece by ATEEN
For apprenticeships fully or partially integrated Assessment.	N/A
Mode(s) of Study (PT, FT, DL, Mix of DL & Face-to-Face) Apprenticeship	FT, PT
Duration of the programme for each mode of study	FT - 4 year, 4.5 + years
Dual accreditation (if applicable)	NECHE Accredited (US)
Date of production/revision of this specification	Spring 2022

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.

More detailed information on the learning outcomes, content, and teaching, learning and assessment methods of each module can be found in student module guide(s) and the student's handbook.

The accuracy of the information contained in this document is reviewed by the University and may be verified by the Quality Assurance Agency for Higher Education.

2.1 Educational aims and objectives

The BSc in Computer Science programme targets students that are interested primarily in Computing, as well as students or professionals that are interested to specialise in certain areas in computing. Courses in the Division of Science and Technology are designed to broaden students' perspectives on the role of computing mathematics, statistics and science in the modern world, while equipping them with both computer literacy and quantitative skills. A broad range of computing courses is offered, the majority of which has a strong laboratory component with emphasis on application.

The programme does not concentrate only on the latest technologies, which will at some point become outdated, but also to provide students with excellent critical skills and systematic thinking that will allow them to become lifelong learners and succeed in a wide variety of technical and managerial positions. ACT and the Division of S&T is committed to ensure that the graduates of the Computer Science Programme are well prepared for graduate studies, academic research as well as multifaceted careers in the ICT sector.

Programme goals and competencies

The Programme aims to:

- Equip students with knowledge, skills and inspiration for a career at the forefront of innovation or further studies and research in computer science
- Provide NECHE and QAA standards level education in Computer Science, appropriate for either a career in industry or graduate studies. Such education will cover a wide range of knowledge and understanding in all relevant areas of a rigorous curriculum and foster problem solving skills and information literacy
- Develop cognitive skills needed by the computer scientist: the ability to model systems, the power of abstraction, the ability to communicate technical arguments
- Provide the ability to critically evaluate computer systems, their performance and their specifications and demonstrate a high-level of professional competence across a range of technical, legal and ethical areas.
- Instill professional and entrepreneurial attitudes in students and develop a range of transferable skills that would enable them to advance and exploit the knowledge and technical expertise in pursuing their further career.
- Demonstrate the applicability of knowledge and skills in various contexts in which computer systems are developed, either when working alone or effectively participating as members of international teams

Programme Learning Outcomes (PLOs)

A total of four (4) distinct categories of learning outcomes have been identified, as follows:

A. Knowledge and Understanding
B. Cognitive Skills
C. Practical and Professional Skills
D. Key/Transferable Skills

Different learning outcomes are identified per Level, both in context and in numbers as well. A brief overview of the Learning outcomes per level is as follows:

Level 4 (p.5 – p.12)

A. Knowledge and Understanding: A1 – A4

B. Cognitive Skills: B1-B6
C. Practical and Professional Skills: C1-C4
D. Key/Transferable Skills: D1-D4

Level 5 (p.13 – p.20)

A. Knowledge and Understanding: A1 – A5
B. Cognitive Skills: B1-B7
C. Practical and Professional Skills: C1-C6
D. Key/Transferable Skills: D1-D6

Level 6 (p.21 – p.28)

A. Knowledge and Understanding: A1 – A5
B. Cognitive Skills: B1-B7
C. Practical and Professional Skills: C1-C6
D. Key/Transferable Skills: D1-D5

The numbering convention is the same for all Levels (as requested by the OU template), yet the actual context of each PLO differs, so as to reflect the skills and abilities of each level (Bloom's taxonomy framework has been taken into consideration). Specific details on the Programme Learning Outcomes per Level are presented on Section 3 – Programme structure and learning outcomes.

2.2 Relationship to other programmes and awards

(Where the award is part of a hierarchy of awards/programmes, this section describes the articulation between them, opportunities for progression upon completion of the programme, and arrangements for bridging modules or induction)

Degree candidates majoring in Computer Science at ACT are required to select one module as a Business Major Elective module, offered by the Business Division. Many of the Computer Science modules, offered by the Division of Science and Technology, are also taken by Majors in Business Computing, also offered by the Division of Science and Technology.

2.3 For Foundation Degrees, please list where the 60 credit work-related learning takes place. For apprenticeships an articulation of how the work based learning and academic content are organised with the award.

N/A

2.4 List of all exit awards

- BSc (Ordinary) Computer Science: 300 credits (120 at Level 4, 120 at Level 5, 60 at Level 6) - but not including Computer Science 443/ 444 – Thesis I / II)

- Diploma of Higher Education in Computer Science: 240 credits (120 at Level 4, 120 at Level 5)
- Certificate of Higher Education in Computer Science: 120 credits at Level 4

3. Programme structure and learning outcomes

(The structure for any part-time delivery should be presented separately in this section.)

Programme Structure - LEVEL 4

Compulsory modules	Credit points	Optional modules	Credit points	Is module compensatable?	Semester runs in
CSC 105 - Structured Programming	15	**ECON 101 -** Introductory Economics	15	N/A	Varies by students cohort entrance (Fall or Spring)
CSC 106 - Object Oriented Programming	15	**MRKT 101 -** Introduction to Marketing	15		
CSC 205 - Business Data Management	15	**ACC 101 -** Financial Accounting	15		
CSC 215 - Data Structures	15				
CSC 230 - Systems Programming	15				
MATH 120 - Calculus I	15				
STAT 210 - Statistics with R	15				

Intended learning outcomes at **Level 4** are listed below:

Learning Outcomes – LEVEL 4	
3A. Knowledge and understanding	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
On completion of this level you will be able to: A1. **understand** a computer science related scientific method and its applications to problem-solving in a specific area A2. **identify** and **describe** some essential facts A3. **describe** and **explain** principles and theories relating to subject areas of computer science A4. **identify** knowledge and **name** computer applications as appropriate to the course of study	Guided teaching environment (Lectures & labs) is the principal method of delivery for the concepts, principles and skills involved in the outcomes. Students are also directed to reading from textbooks, academic papers and other relevant material. Understanding is reinforced by means of exercise classes, discussion groups, laboratories, assignments and project work. Tools to be used to achieve this will include some or all from the following: ● printed and online teaching texts ● directed readings from textbooks and papers ● Specialised software tools. **Support of learning:** Learning is supported outside the classroom with the use of the learning management system Moodle, instructor office hours, sample answers to assessment and extra lectures as seen appropriate by the instructor. Tools to be used to achieve this will include some or all from the following:

Learning Outcomes – LEVEL 4	
3A. Knowledge and understanding	
	• self-assessment questions and exercises, included in the teaching texts • programming tasks, computer-based investigations and open-ended project work • feedback and guidance from an instructor; tutorials, revisions and in-class activities • e-mail and individual instructor-learner conferences • Study and project guides. **Assessment of learning:** An assessment of the understanding of underlying concepts and principles forms part of the overall assessment of final exams/projects submitted/taken. Tools to be used to achieve this will include some or all from the following: • Instructor-Marked summative formal examinations • Instructor-Marked summative projects • Instructor-Marked summative presentations • Instructor-Marked formative assignments/assessment • Instructor-Marked formative projects

3B. Cognitive skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
On completion of this level you will be able to: B1. **recognise** critical thinking, including its relevance to everyday life B2. **identify** such knowledge and understanding in the modelling and design of computer-based systems B3. **outline** the criteria and specifications appropriate to specific problems B4. **review** the criteria met by a computer system, as they are defined for its current use and future development B5. **name** and **discuss** a set of rational and reasoned arguments, addressing a given problem or opportunity in a target audience. B6. **give** simple **examples** of economic, professional, social, environmental, moral and ethical issues in the sustainable exploitation of computer technology	Guided teaching environment (Lectures & labs) is the principal method of delivery for the concepts, principles and skills involved in the outcomes. Students are also directed to reading from textbooks, academic papers and other relevant material. Understanding is reinforced by means of exercise classes, discussion groups, laboratories, assignments and project work. Tools to be used to achieve this will include some or all from the following: ● printed and online teaching texts ● directed readings from textbooks and papers ● Specialised software tools. **Support of learning:** Learning is supported outside the classroom with the use of the learning management system Moodle, instructor office hours, sample answers to assessment and extra lectures as seen appropriate by the instructor. Tools to be used to achieve this will include some or all from the following: ● self-assessment questions and exercises, included in the teaching texts

3B. Cognitive skills	
	• programming tasks, computer-based investigations and open-ended project work • feedback and guidance from an instructor; tutorials, revisions and in-class activities • e-mail and individual instructor-learner conferences • Study and project guides. **Assessment of learning:** An assessment of the understanding of underlying concepts and principles forms part of the overall assessment of final exams/projects submitted/taken. Tools to be used to achieve this will include some or all from the following: • Instructor-Marked summative formal examinations • Instructor-Marked summative projects • Instructor-Marked summative presentations • Instructor-Marked formative assignments/assessment • Instructor-Marked formative projects

3C. Practical and professional skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
On completion of this level you will be able to: C1. **Recognise** and **describe** the high-level architecture of computer-based systems C2. **identify** the quality attributes and possible trade-offs a system in the context of a given problem C3. **Name** any risks or safety aspects during the deployment of a system or solution in the context of a given problem C4. **Compare** some of the essential tools per study area, used for the construction and documentation of an application.	Guided teaching environment (Lectures & labs) is the principal method of delivery for the concepts, principles and skills involved in the outcomes. Students are also directed to reading from textbooks, academic papers and other relevant material. Understanding is reinforced by means of exercise classes, discussion groups, laboratories, assignments and project work. Tools to be used to achieve this will include some or all from the following: ● printed and online teaching texts ● directed readings from textbooks and papers ● Specialised software tools. **Support of learning:** Learning is supported outside the classroom with the use of the learning management system Moodle, instructor office hours, sample answers to assessment and extra lectures as seen appropriate by the instructor. Tools to be used to achieve this will include some or all from the following: ● self-assessment questions and exercises, included in the teaching texts

3C. Practical and professional skills	
	● programming tasks, computer-based investigations and open-ended project work ● feedback and guidance from an instructor; tutorials, revisions and in-class activities ● e-mail and individual instructor-learner conferences ● Study and project guides. **Assessment of learning:** An assessment of the understanding of underlying concepts and principles forms part of the overall assessment of final exams/projects submitted/taken. Tools to be used to achieve this will include some or all from the following: ● Instructor-Marked summative formal examinations ● Instructor-Marked summative projects ● Instructor-Marked summative presentations ● Instructor-Marked formative assignments/assessment ● Instructor-Marked formative projects

3D. Key/transferable skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
On completion of this level you will be able to: D1. be enumerate and literate in **describing** cases which involve both quantitative as well as qualitative dimensions D2. Retrieve information from various sources (search engines, catalogues etc.) D3. **operate** general Information Technology facilities D4. **practice** on the effective goal setting and action planning	Guided teaching environment (Lectures & labs) is the principal method of delivery for the concepts, principles and skills involved in the outcomes. Students are also directed to reading from textbooks, academic papers and other relevant material. Understanding is reinforced by means of exercise classes, discussion groups, laboratories, assignments and project work. Tools to be used to achieve this will include some or all from the following: ● printed and online teaching texts ● directed readings from textbooks and papers ● Specialised software tools. **Support of learning:** Learning is supported outside the classroom with the use of the learning management system Moodle, instructor office hours, sample answers to assessment and extra lectures as seen appropriate by the instructor. Tools to be used to achieve this will include some or all from the following: ● self-assessment questions and exercises, included in the teaching texts

3D. Key/transferable skills	
	• programming tasks, computer-based investigations and open-ended project work • feedback and guidance from an instructor; tutorials, revisions and in-class activities • e-mail and individual instructor-learner conferences • Study and project guides. **Assessment of learning:** An assessment of the understanding of underlying concepts and principles forms part of the overall assessment of final exams/projects submitted/taken. Tools to be used to achieve this will include some or all from the following: • Instructor-Marked summative formal examinations • Instructor-Marked summative projects • Instructor-Marked summative presentations • Instructor-Marked formative assignments/assessment • Instructor-Marked formative projects

[Certificate of Higher Education in Computer Science (120 credits at Level 4)]

Programme Structure - LEVEL 5					
Compulsory modules	**Credit points**	**Optional modules**	**Credit points**	**Is module compensatable?**	**Semester runs in**
CSC 206 - Web Development	15			N/A	Varies by students cohort entrance (Fall or Spring)
CSC 300 - Mobile Application Development	15				
CSC 306 - Advanced Web Development	15				
CSC 310 - Hardware & Computer Architecture	15				
CSC 312 - Database Management Systems	15				
CSC 340 - Artificial Intelligence	15				
CSC 450 - System Analysis & Design	15				
MATH 220 - Discrete Mathematics	15				

Intended learning outcomes at **Level 5** are listed below:**Learning Outcomes – LEVEL 5**	
3A. Knowledge and understanding	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
On completion of this level you will be able to: A1. **practice** on a computer science related scientific method and apply it for problem-solving in a specific area A2. **identify** and **distinguish** over a wide range of essential facts and concepts of Computer Science A3. **experiment** and **test** principles and theories on intermediate level A4. **identify** and **name** computer applications as appropriate to the course of study A5. **analyse**, **test** and **experiment** with the appropriate theory, practices and tools for the specification, design, implementation and evaluation of computer-based systems	Guided teaching environment (Lectures & labs) is the principal method of delivery for the concepts, principles and skills involved in the outcomes. Students are also directed to reading from textbooks, academic papers and other relevant material. Understanding is reinforced by means of exercise classes, discussion groups, laboratories, assignments and project work. Tools to be used to achieve this will include some or all from the following: ● printed and online teaching texts ● directed readings from textbooks and papers ● Specialised software tools. **Support of learning:** Learning is supported outside the classroom with the use of the learning management system Moodle, instructor office hours, sample answers to assessment and extra lectures as seen appropriate by the instructor.

Intended learning outcomes at **Level 5** are listed below:**Learning Outcomes – LEVEL 5**	
3A. Knowledge and understanding	
	Tools to be used to achieve this will include some or all from the following: ● self-assessment questions and exercises, included in the teaching texts ● programming tasks, computer-based investigations and open-ended project work ● feedback and guidance from an instructor; tutorials, revisions and in-class activities ● e-mail and individual instructor-learner conferences ● Study and project guides. **Assessment of learning:** An assessment of the understanding of underlying concepts and principles forms part of the overall assessment of final exams/projects submitted/taken. Tools to be used to achieve this will include some or all from the following: ● Instructor-Marked summative formal examinations ● Instructor-Marked summative projects ● Instructor-Marked summative presentations ● Instructor-Marked formative assignments/assessment ● Instructor-Marked formative projects

3B. Cognitive skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
On completion of this level you will be able to: B1. **demonstrate** critical thinking, including its relevance to everyday life B2. **employ** and **apply** such knowledge and understanding in the modelling and design of computer-based systems B3. **predict** and **produce** a set of the criteria and specifications appropriate to specific problems B4. **formulate** and **revise** the criteria met by a computer system, as they are defined for its current use and future development B5. **Explain** and **illustrate** a set of rational and reasoned arguments, addressing a given problem or opportunity in a target audience. B6. **categorise** a number of economic, professional, social, environmental, moral and ethical issues in the sustainable exploitation of computer technology B7. **design** and **develop** the appropriate theory, practises and tools for the specification, design, implementation and evaluation of computer-based systems	Guided teaching environment (Lectures & labs) is the principal method of delivery for the concepts, principles and skills involved in the outcomes. Students are also directed to reading from textbooks, academic papers and other relevant material. Understanding is reinforced by means of exercise classes, discussion groups, laboratories, assignments and project work. Tools to be used to achieve this will include some or all from the following: ● printed and online teaching texts ● directed readings from textbooks and papers ● Specialised software tools. **Support of learning:** Learning is supported outside the classroom with the use of the learning management system Moodle, instructor office hours, sample answers to assessment and extra lectures as seen appropriate by the instructor. Tools to be used to achieve this will include some or all from the following: ● self-assessment questions and exercises, included in the teaching texts

3B. Cognitive skills	
	• programming tasks, computer-based investigations and open-ended project work • feedback and guidance from an instructor; tutorials, revisions and in-class activities • e-mail and individual instructor-learner conferences • Study and project guides. **Assessment of learning:** An assessment of the understanding of underlying concepts and principles forms part of the overall assessment of final exams/projects submitted/taken. Tools to be used to achieve this will include some or all from the following: • Instructor-Marked summative formal examinations • Instructor-Marked summative projects • Instructor-Marked summative presentations • Instructor-Marked formative assignments/assessment • Instructor-Marked formative projects

3C. Practical and professional skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
On completion of this level you will be able to: C1. **Construct** and **illustrate** the architecture of reliable, secure and usable computer-based systems C2. **analyse** and **examine** the quality attributes and possible trade-offs a system in the context of a given problem C3. **Inspect** and **test** any risks or safety aspects during the deployment of a system or solution in the context of a given problem C4. **Employ** some of the essential tools per study area, used for the construction and documentation of an application. C5. **Operate** under specific project requirements to produce deliverables that take into consideration project/system requirements and budget. C6. **Analyse** and **discover** the process involved in the development and deployment of a system for solving real-life problems	Guided teaching environment (Lectures & labs) is the principal method of delivery for the concepts, principles and skills involved in the outcomes. Students are also directed to reading from textbooks, academic papers and other relevant material. Understanding is reinforced by means of exercise classes, discussion groups, laboratories, assignments and project work. Tools to be used to achieve this will include some or all from the following: ● printed and online teaching texts ● directed readings from textbooks and papers ● Specialised software tools. **Support of learning:** Learning is supported outside the classroom with the use of the learning management system Moodle, instructor office hours, sample answers to assessment and extra lectures as seen appropriate by the instructor. Tools to be used to achieve this will include some or all from the following: ● self-assessment questions and exercises, included in the teaching texts

3C. Practical and professional skills	
	● programming tasks, computer-based investigations and open-ended project work ● feedback and guidance from an instructor; tutorials, revisions and in-class activities ● e-mail and individual instructor-learner conferences ● Study and project guides. **Assessment of learning:** An assessment of the understanding of underlying concepts and principles forms part of the overall assessment of final exams/projects submitted/taken. Tools to be used to achieve this will include some or all from the following: ● Instructor-Marked summative formal examinations ● Instructor-Marked summative projects ● Instructor-Marked summative presentations ● Instructor-Marked formative assignments/assessment ● Instructor-Marked formative projects

3D. Key/transferable skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
On completion of this level you will be able to: D1. be enumerate and literate in **describing** cases which involve both quantitative as well as qualitative dimensions D2. retrieve information from various sources (search engines, catalogues etc.) D3. **operate** general Information Technology facilities D4. **practise** on the effective goal setting and action planning D5. **Identify** problems that may arise and **devise** their solutions in the context of a computer science project D6.**Outline** and **generate** the best possible outcome while working along with a group of individuals	Guided teaching environment (Lectures & labs) is the principal method of delivery for the concepts, principles and skills involved in the outcomes. Students are also directed to reading from textbooks, academic papers and other relevant material. Understanding is reinforced by means of exercise classes, discussion groups, laboratories, assignments and project work. Tools to be used to achieve this will include some or all from the following: ● printed and online teaching texts ● directed readings from textbooks and papers ● Specialised software tools. **Support of learning:** Learning is supported outside the classroom with the use of the learning management system Moodle, instructor office hours, sample answers to assessment and extra lectures as seen appropriate by the instructor. Tools to be used to achieve this will include some or all from the following: ● self-assessment questions and exercises, included in the teaching texts

3D. Key/transferable skills	
	• programming tasks, computer-based investigations and open-ended project work • feedback and guidance from an instructor; tutorials, revisions and in-class activities • e-mail and individual instructor-learner conferences • Study and project guides. **Assessment of learning:** An assessment of the understanding of underlying concepts and principles forms part of the overall assessment of final exams/projects submitted/taken. Tools to be used to achieve this will include some or all from the following: • Instructor-Marked summative formal examinations • Instructor-Marked summative projects • Instructor-Marked summative presentations • Instructor-Marked formative assignments/assessment • Instructor-Marked formative projects

[Diploma of Higher Education in Computer Science / 240 credits (120 at Level 4, 120 at Level 5)]

Programme Structure - LEVEL 6					
Compulsory modules	**Credit points**	**Optional modules**	**Credit points**	**Is module compensatable?**	**Semester runs in**
CSC 321 - Operating Systems	15	**CSC 219 -** Video Game Design	15	N/A	Varies by students cohort entrance (Fall or Spring)
CSC 322 - Computer Networks I	15	**CSC 330 –** Introduction to Mobile Robotics	15		
CSC 325 - Distributed Applications	15	**CSC 333 -** Computer Networks II	15		
CSC 412 - Object Oriented Design Patterns	15	**CSC 422 -** Advanced DBMS	15		
CSC 421 - Computer Systems Security	15	**PRAC 300** - PRACTICUM	15		
CSC 443 - Thesis I	15				
CSC 444 - Thesis II	15				

Intended learning outcomes at **Level 6** are listed below:

Learning Outcomes – LEVEL 6	
3A. Knowledge and understanding	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
A. **Knowledge and understanding** - On completion of this level you will be able to: A1. **reproduce** a computer science related scientific method and **extend** its applications to problem-solving in a specific area A2. **employ** and **practice** advanced facts A3. **model** and **test** principles and theories relating to subject areas of computer science A4. **analyse** knowledge and **revise** computer applications as appropriate to the course of study A5. **assess, interpret and evaluate** the appropriate theory, practices and tools for the specification, design, implementation and evaluation of computer-based systems	Guided teaching environment (Lectures & labs) is the principal method of delivery for the concepts, principles and skills involved in the outcomes. Students are also directed to reading from textbooks, academic papers and other relevant material. Understanding is reinforced by means of exercise classes, discussion groups, laboratories, assignments and project work. Tools to be used to achieve this will include some or all from the following: ● printed and online teaching texts ● directed readings from textbooks and papers ● Specialised software tools. **Support of learning:** Learning is supported outside the classroom with the use of the learning management system Moodle, instructor office hours, sample answers to assessment and extra lectures as seen appropriate by the instructor. Tools to be used to achieve this will include some or all from the following:

Learning Outcomes – LEVEL 6	
3A. Knowledge and understanding	
	• self-assessment questions and exercises, included in the teaching texts • programming tasks, computer-based investigations and open-ended project work • feedback and guidance from an instructor; tutorials, revisions and in-class activities • e-mail and individual instructor-learner conferences • Study and project guides. **Assessment of learning:** An assessment of the understanding of underlying concepts and principles forms part of the overall assessment of final exams/projects submitted/taken. Tools to be used to achieve this will include some or all from the following: • Instructor-Marked summative formal examinations • Instructor-Marked summative projects • Instructor-Marked summative presentations • Instructor-Marked formative assignments/assessment • Instructor-Marked formative projects

3B. Cognitive skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
B. Cognitive skills - On completion of this level you will be able to: B1. **demonstrate** critical thinking, including its relevance to everyday life B2. **combine** and **interpret** such knowledge and understanding in the modelling and design of computer-based systems B3. **devise** and **judge** a set of the criteria and specifications appropriate to specific problems B4. **measure** and **assess** the criteria met by a computer system, as they are defined for its current use and future development B5. **compare** and **conclude** to a set of rational and reasoned arguments, addressing a given problem or opportunity in a target audience. B6. **rate** a number of economic, professional, social, environmental, moral and ethical issues in the sustainable exploitation of computer technology	Guided teaching environment (Lectures & labs) is the principal method of delivery for the concepts, principles and skills involved in the outcomes. Students are also directed to reading from textbooks, academic papers and other relevant material. Understanding is reinforced by means of exercise classes, discussion groups, laboratories, assignments and project work. Tools to be used to achieve this will include some or all from the following: ● printed and online teaching texts ● directed readings from textbooks and papers ● Specialised software tools. **Support of learning:** Learning is supported outside the classroom with the use of the learning management system Moodle, instructor office hours, sample answers to assessment and extra lectures as seen appropriate by the instructor. Tools to be used to achieve this will include some or all from the following: ● self-assessment questions and exercises, included in the teaching texts

3B. Cognitive skills	
B7. **propose** and **argue** on the appropriate theory, practises and tools for the specification, design, implementation and evaluation of computer-based systems	• programming tasks, computer-based investigations and open-ended project work • feedback and guidance from an instructor; tutorials, revisions and in-class activities • e-mail and individual instructor-learner conferences • Study and project guides. **Assessment of learning:** An assessment of the understanding of underlying concepts and principles forms part of the overall assessment of final exams/projects submitted/taken. Tools to be used to achieve this will include some or all from the following: • Instructor-Marked summative formal examinations • Instructor-Marked summative projects • Instructor-Marked summative presentations • Instructor-Marked formative assignments/assessment • Instructor-Marked formative projects

3C. Practical and professional skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
On completion of this level you will be able to: C1. **Design** and **illustrate** the architecture of reliable, secure and usable computer-based systems C2. **Predict** and **justify** the quality attributes and possible trade-offs a system in the context of a given problem C3. **Estimate** and **evaluate** any risks or safety aspects during the deployment of a system or solution in the context of a given problem C4. **Develop** some of the essential tools per study area, used for the construction and documentation of an application. C5. **Operate** under specific project requirements to produce deliverables that take into consideration project/system requirements and budget. C6. **Assess** and **revise** the process involved in the development and deployment of a system for solving real-life problems	Guided teaching environment (Lectures & labs) is the principal method of delivery for the concepts, principles and skills involved in the outcomes. Students are also directed to reading from textbooks, academic papers and other relevant material. Understanding is reinforced by means of exercise classes, discussion groups, laboratories, assignments and project work. Tools to be used to achieve this will include some or all from the following: ● printed and online teaching texts ● directed readings from textbooks and papers ● Specialised software tools. **Support of learning:** Learning is supported outside the classroom with the use of the learning management system Moodle, instructor office hours, sample answers to assessment and extra lectures as seen appropriate by the instructor. Tools to be used to achieve this will include some or all from the following: ● self-assessment questions and exercises, included in the teaching texts

3C. Practical and professional skills	
	● programming tasks, computer-based investigations and open-ended project work ● feedback and guidance from an instructor; tutorials, revisions and in-class activities ● e-mail and individual instructor-learner conferences ● Study and project guides. **Assessment of learning:** An assessment of the understanding of underlying concepts and principles forms part of the overall assessment of final exams/projects submitted/taken. Tools to be used to achieve this will include some or all from the following: ● Instructor-Marked summative formal examinations ● Instructor-Marked summative projects ● Instructor-Marked summative presentations ● Instructor-Marked formative assignments/assessment ● Instructor-Marked formative projects

3D. Key/transferable skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
On completion of this level you will be able to: D1. be enumerate and literate in **describing** cases which involve both quantitative as well as qualitative dimensions D2. retrieve information from various sources (search engines, catalogues etc.) D3. **operate** general Information Technology facilities D4. **practise** on the effective goal setting and action planning D5. **Identify** problems that may arise and **devise** their solutions in the context of a computer science project D6.**Outline** and **generate** the best possible outcome while working along with a group of individuals	Guided teaching environment (Lectures & labs) is the principal method of delivery for the concepts, principles and skills involved in the outcomes. Students are also directed to reading from textbooks, academic papers and other relevant material. Understanding is reinforced by means of exercise classes, discussion groups, laboratories, assignments and project work. Tools to be used to achieve this will include some or all from the following: ● printed and online teaching texts ● directed readings from textbooks and papers ● Specialised software tools. **Support of learning:** Learning is supported outside the classroom with the use of the learning management system Moodle, instructor office hours, sample answers to assessment and extra lectures as seen appropriate by the instructor. Tools to be used to achieve this will include some or all from the following: ● self-assessment questions and exercises, included in the teaching texts

3D. Key/transferable skills	
	• programming tasks, computer-based investigations and open-ended project work • feedback and guidance from an instructor; tutorials, revisions and in-class activities • e-mail and individual instructor-learner conferences • Study and project guides. **Assessment of learning:** An assessment of the understanding of underlying concepts and principles forms part of the overall assessment of final exams/projects submitted/taken. Tools to be used to achieve this will include some or all from the following: • Instructor-Marked summative formal examinations • Instructor-Marked summative projects • Instructor-Marked summative presentations • Instructor-Marked formative assignments/assessment • Instructor-Marked formative projects

[BSc Ordinary in Computer Science / 300 credits (120 at Level 4, 120 at Level 5, 60 at Level 6]but not including Computer Science 443/ 444 – Thesis I / II)

OR

[BSc (Hons) in Computer Science / 360 credits (120 at Level 4, 120 at Level 5, 120 at Level 6]

4. Distinctive features of the programme structure

- **Where applicable, this section provides details on distinctive features such as:**
  - where in the structure above a professional/placement year fits in and how it may affect progression
  - any restrictions regarding the availability of elective modules
  - where in the programme structure students must make a choice of pathway/route
- **Additional considerations for apprenticeships:**
  - how the delivery of the academic award fits in with the wider apprenticeship
  - the integration of the 'on the job' and 'off the job' training
  - how the academic award fits within the assessment of the apprenticeship

The Computer Science programme offered by the ACT Division of Science and Technology leads to the awarding of two degrees:

- A US BSc degree, accredited by the US NECHE (New England Commission of Higher Education), and
- A UK BSc (Hons) degree, validated by the UK Open University (OU)

Courses in the Division are designed to broaden students' perspectives on the role of computing, mathematics, statistics and science in the modern world, while equipping them with both computer literacy and quantitative skills. A broad range of computing courses is offered, the majority having a strong laboratory component with emphasis on application.

ACT Degree Competitive Advantage Areas

An ACT graduate with the BSc (Hons) in Computer Science will have obtained a theoretical and practical adequacy in the field of IT application and design, as well as directly marketable skills through the ability to further obtain certifications in popular technologies (CCNA and ORACLE courses are offered and certification can be obtained directly from the companies upon completion of study and examination) under the following CS fields:

- Programming
- Web Development
- Database systems
- Networking
- Artificial Intelligence/Data Science
- Security

Special Features

The programme does not concentrate only on the latest technologies, which at some point will become outdated, but provides students with excellent critical skills and

systematic thinking that will allow them to become lifelong learners and succeed in a wide variety of technical and managerial positions. Students are prepared for a successful career in the field of computing and its applications and/or additional study in computing at the graduate level.

Computing and Teaching Facilities

- Modern computer facilities include over 40 high-speed servers present in the network infrastructure and more than 130 latest technology workstations all connected to the Internet, available to students in 5 PC laboratories.
- All the necessary software for programing, multimedia, web-development and instruction is available in the labs for you to use.
- A CISCO networking laboratory and a Robotics-Microelectronics lab exist for classroom teaching and personal student study and exploration.
- Students have access to printing and scanning devices.
- Our classrooms are spacious and equipped with a PC and projector. All classrooms are connected to a high-speed campus network and are connected to the internet.
- Students have abundant personal and secure server storage area, accessible from campus and home and are provided with email and Moodle accounts.
- Wi-Fi is available around the campus for laptop and mobile internet access.
- Hardware and software technical support is available and is of first-rate level.

Campus

It should finally be noted that the ACT graduate will have received their higher education at the ACT campus, a highly international environment with first rate services, facilities and resources afforded to its students.

5. Support for students and their learning.
(For apprenticeships this should include details of how student learning is supported in the work place)

Academic Support Services include:

- Financial Aid
- An Academic Advising Programme through which each student is assigned an advisor upon entering his/her freshman year who will offer advice on the students' academic and career plans. Students are expected to meet with their advisors regularly throughout the term, and especially when they face academic problems or want to withdraw from a course. Students are expected to consult with their advisors prior to registration.
- Counselling services with a professional staff member, for students who that feel they need them and ask for them, with full confidentiality.

- A Learning Hub, open to all students, to help with writing projects since many are not familiar with project-oriented education and are used to lecture-based classes. The Learning Hub also provides Math tutors.
- A Business Liaison and Career Services Office through which students are provided assistance towards their efforts in preparing graduate school applications and employment search, as well building bridges with the professional world. The office also develops programmes and workshops to help with the students' future career plans.
- An I.T. centre which provides technical assistance and advice, as well as information technology instructional services.
- In the Niarchos Technology centre, students have access to 4 computer labs and printing services, while in the New Building they have full access to 1 computer lab and printing services.
- Extensive Library facilities and assistance.
- ACT students have the opportunity to study abroad for one summer or term during their time as a student through the International Programmes Office at ACT.
- ACT has a learning disability policy in practice and provides appropriate assistance and compensation to students that have certified needs.

ACT maintains a long-established Committee on Academic Standards and Performance.

6. Criteria for admission
(For apprenticeships this should include details of how the criteria will be used with employers who will be recruiting apprentices.)

Applicants are required to submit the following when applying for admission to the programme:

All first-year candidates are required to submit an application for admission along with the required material. Students may submit an application through the online portal or a paper-based one.

Applications are reviewed by the admissions director and the director of enrollment, who are familiar with a variety of school systems and transcripts.

Application Requirements

Applicants are required to submit the following when applying for admission to the program:

1. An Application Form.
2. An official high school transcript of grades. If you have not attended an English- or Greek-speaking high school, an official translation into English is required. An official high school diploma with a minimum grade of 14/20 in the Greek high school system or

its equivalent in any other system; a minimum score of 24 in the IB diploma. If you have not attended an English- or Greek-speaking high school, an official translation into English is required.

3. An official high school diploma. If you have not attended an English- or Greek-speaking high school, an official translation into English is required.
4. Personal essay.
5. Official evidence of proficiency in English. Students should submit an English certificate at a minimum level of B2, obtained in the last two years. Exempted are students whose primary language of instruction at school has been English for the duration of the secondary school studies.

A list of acceptable English test scores is the following:

- Test of English as a Foreign Language (TOEFL), overall score iBT score 80
- FIRST CERTIFICATE IN ENGLISH CAMBRIDGE UNIVERSITY or CAMBRIDGE ASSESSMENT ENGLISH or FIRST CERTIFICATE IN ENGLISH, CAMBRIDGE ASSESSMENT ENGLISH overall score 160-179.
- INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM (IELTS), University of Cambridge Local Examinations Syndicate (UCLES) or CAMBRIDGE ASSESSMENT ENGLISH – The British Council – IDP Education Australia IELTS Australia score 5,5 - 6,5.
- (ECCE)- CERTIFICATE OF COMPETENCY IN ENGLISH, MICHIGAN University (ENGLISH LANGUAGE INSTITUTE or Cambridge Michigan Language Assessments - CaMLA or Michigan Language Assessment.)
- TEST OF ENGLISH FOR INTERNATIONAL COMMUNICATION (TOEIC) score 505 - 780, EDUCATIONAL TESTING SERVICE/CHAUNCEY, USA.
- Michigan State University – Certificate of English Language Competency (MSU – CELC) : CEFR B2.

If your qualification is not listed above, you can still apply, as applications are assessed on an individual basis

6. A recent passport-size color photograph.

7. A photocopy of either your ID card (Greek only: ταυτότητα) or your valid passport (all EU students).
8. A non-refundable application fee of 70.00 Euro. The application fee should be deposited at one of ACT's bank accounts.

A copy of the bank receipt should accompany the application. For more information regarding fees and payment procedures please contact the Accounting office +30-2310-398219.

All application documentation should be submitted/mailed directly to the Admissions Office.

Application Requirements (Non-EU Admission)

ACT's admissions application process is the same for all students regardless of their citizenship or country of residence.

Applications are reviewed by the admissions director and the director of enrollment, who are familiar with a variety of school systems and transcripts.

Non-EU applicants must demonstrate that financial resources are available to them which are sufficient to meet the costs of tuition and fees, books and supplies, living expenses during their stay in Greece, and transportation expenses to return to their country.

Application Requirements

Applicants are required to submit the following when applying for admission to the program:

1. An Application Form.
2. An official high school transcript of grades. If you have not attended an English- or Greek-speaking high school, an official translation into English is required.
3. An official high school diploma. An official high school diploma with a minimum grade of 70% or its equivalent; a minimum score of 24 in the IB diploma. If you have not attended an English- or Greek-speaking high school, an official translation into English is required.
4. A school profile which should include a description of the school, grading system, curricular and extracurricular resources.
5. Official evidence of proficiency in English.

A list of acceptable English test scores is the following:

- Test of English as a Foreign Language (TOEFL), overall score iBT score 80
- FIRST CERTIFICATE IN ENGLISH CAMBRIDGE UNIVERSITY or CAMBRIDGE ASSESSMENT ENGLISH or FIRST CERTIFICATE IN ENGLISH, CAMBRIDGE ASSESSMENT ENGLISH overall score 160-179.
- INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM (IELTS), University of Cambridge Local Examinations Syndicate (UCLES) or CAMBRIDGE ASSESSMENT ENGLISH – The British Council – IDP Education Australia IELTS Australia score 5,5 - 6,5.

- (ECCE)- CERTIFICATE OF COMPETENCY IN ENGLISH, MICHIGAN University (ENGLISH LANGUAGE INSTITUTE or Cambridge Michigan Language Assessments - CaMLA or Michigan Language Assessment.)
- TEST OF ENGLISH FOR INTERNATIONAL COMMUNICATION (TOEIC) score 505 - 780, EDUCATIONAL TESTING SERVICE/CHAUNCEY, USA.
- Michigan State University – Certificate of English Language Competency (MSU – CELC) : CEFR B2.

If your qualification is not listed above, you can still apply, as applications are assessed on an individual basis.

6. Personal essay.
7. A recent passport-size color photograph.
8. A photocopy of your valid passport.
9. A non-refundable application fee of 70.00 Euro. The application fee should be deposited at one of ACT's bank accounts.

A copy of the bank receipt should accompany the application. For more information regarding fees and payment procedures please contact the Accounting office +30-2310-398219.

All application documentation should be submitted/mailed directly to the Admissions Office.

Application Requirements (US Degree-Seeking Admission)

We accept applications on a rolling admissions basis by April 1st. Admitted students should make a non-refundable deposit by May 1st.

If you missed our deadline, please contact the admissions office at admissions@act.edu. Applications beyond the deadline will be considered based on space availability.

US applicants are required to submit the following when applying for admission to the program:

1. An Application Form.
2. Official transcripts of 9th, 10th, 11th grade and a grade report of the 12th grade. Candidates should have earned a minimum overall grade average of C+ in their final year or a minimum score of 24 in the IB grading system to be admitted.
3. Personal essay.
4. One letter of recommendation from a teacher/advisor.
5. SAT/ACT scores (optional, but strongly encouraged).
6. A recent passport-size color photograph.
7. A photocopy of your valid passport.
8. A non-refundable application fee of $50. The application fee should be deposited at one of ACT's bank accounts.

A copy of the bank receipt should accompany the application. For more information regarding fees and payment procedures please contact the Accounting office +30-2310-398219.

All application documentation should be submitted/mailed directly to the Admissions Office.

Applications receive a priority number which determines the order in which successful applicants register for their first semester of course work.

7. Language of study
English

8. Information about non-OU standard assessment regulations (including PSRB requirements)

Marking and assessment procedures are explained in the module descriptors, the programme handbook and are also available on the ACT website (Student Handbook and Regulations). They are therefore easily understood by students. Homework, exams and term papers are 1st marked only with constructive and positive feedback and returned to students in due time.

All academic programmes offered at ACT have specifically-stated learning outcomes at both the degree and the course level.

All Majors publicise their degree programme outcomes, while all module descriptors include clearly articulated course outcomes, with respect to both knowledge and skills.

At the module level student assessment measures include:

- examinations (summative assessments)
- quizzes (summative assessments)
- research papers (summative assessments)
- programming projects (summative assessments)
- class oral presentations (summative assessments)
- case-study analysis e.g. Business modules (summative assessments)
- homework assignments (formative assessment)
- class presentations (formative assessments)
- class participations and discussion (formative assessments)
- Fieldwork observations (formative assessments)

Chairs and key faculty have gained new perspectives on course and programme design and measurement of fulfilment of outcomes. Over the past few years a concerted effort has been launched to complement classroom learning with different forms of experiential learning (Learning in ACTion), effects of which can be measured over the course of a student's residence at the institution.
Student Assessment Strategies aim at:

- Creating an organic relationship between Assessment and curriculum design - assessment is a central feature of the process of programme design and curriculum development;
- Developing clear and consistent Assessment criteria;
- Putting in place an assessment feedback mechanism to students that is (a) timely; (b) balanced between formative and summative feedback, which promotes learning and achievement, and encourages improvement;
- Building a system that facilitates students learning and supports student progression;
- Enabling students through academic support to develop the academic skills that will enable them to progress and achieve on the programmes of their choice;
- Creating a management of assessment that is efficient, especially regarding the amount and timings of assessment, staff and student workloads, and in the provision of time for reflection by students.

Note: The only difference between OU modules and non-OU modules in terms of

assessments is that non-OU modules are marked only by their instructor and usually they have more assessments than the OU ones.

9. For apprenticeships in England End Point Assessment (EPA).
(Summary of the approved assessment plan and how the academic award fits within this and the EPA)

N/A

10. Methods for evaluating and improving the quality and standards of teaching and learning.

Modules combine lecture, discussion (in-class and in office hours), formal presentations, assignments, tutorials, and projects.

Evaluating is done through:

- Student evaluation forms;
- Grade averages;
- Sit in observation(s); and
- Interviews formally or informally.
- External Examiners
- OU Academic Liaison

All relevant information is passed on to individual instructors and teaching team so it can be used to improve teaching and learning strategies. Wherever necessary, the Division Chair conducts individual or group faculty mentoring. The departmental meetings, division meetings and the academic council function as means to address issues for improving the quality and standards of teaching and learning.

Faculty is encouraged to revise lecture content and delivery means on a semester basis following student evaluations, faculty self-evaluations and administrative faculty review (which is performed at a minimal once yearly).

Programme Leaders are informed by industry partners on hard and soft skills required for graduates to possess and when necessary consider their feedback in changes implemented.

External Examiners and the OU Academic Liaison can and often do provide input through the annual monitoring process. Their input is always considered and acted upon as necessary.

"*Learning-In-Action*" initiatives are encouraged and gradually incorporated in module activities as deemed appropriate by each faculty member. (*Learning-In-Action* initiatives are such initiatives that attempt to bring students of a particular module in the work environment of module-relevant practitioners and thus expose them to the "real-life" use of the academic topic they are learning as well as future employment opportunities)

Thesis advisement attempts to address specific student interests, while retaining the spirit and essence of a "capstone" project.

The departmental meetings and the academic council function as means that address issues of improvement.

External reviewer's improvement suggestions are valued and discussed, assessed, and incorporated when made available.

Finally, in May 2017 a workshop on teaching and learning at ACT was conducted with panelists that included both faculty and students and was well attended by both groups with interesting discussions on how ACT faculty can strengthen its teaching and learning strategies. There are plans for a follow up workshop in the near future.

11. Changes made to the programme since last (re)validation

Although no major changes were made to the program while it was under valuation activities such as portfolio analysis and module evaluation has been established as a standard process and is an essential part of the Division's meetings (which are held a minimum of three times a year). Additionally, developments in the subject area of in-professional practice are frequently discussed.

The Science and Technology division has evaluated the course offered under the Computer Science Programme, taking into consideration academic criteria, the student's needs and interests as well as market needs, trends and requirements.

An area which has vastly developed during the past decade is Data Science and Artificial Intelligence (Machine Learning and Deep Learning). Tasks of everyday life in almost every sector, are based on specifically designed methods and algorithms which rely on the principles of Data Science and Artificial Intelligence. Moreover, there is a strong need in the market for personnel to employ a minimum of knowledge and skills in these two areas. Taking also into consideration our students' interests, needs and willingness to be involved in activities (especially in the context of their thesis) which rely on an AI framework, there are a number of adaptations in the curriculum, by enhancing the status of relevant courses.

In the past 3 years the division has undertaken a course portfolio analysis of its programming (CSC 105, CSC 106, CSC 215, CSC 230, CSC 412), database (CSC 201, CSC 205, CSC 312, CSC 450), math (Math 101, CSC 180, MATH 115, MATH 120, Math 220, MATH 230), as well as its data related modules (CSC 151, STAT 205). A Software Engineering module has also been added as a non-OU module. Note, while not all of these modules are not required for the OU Degree, they are options for the ACT students with in the ACT degree, which includes all OU degree modules.

There is also the intention to incorporate the monitoring of developments in QAA subject benchmarks in Division meetings, office and corridoral discource.

The purpose of the proposed modifications presented here is to refine and enhance the programme by introducing new courses as well as upgrading the status of all currently offered ones.

Under this scope, CSC 107: Digital Media Toolkit will not be part of the Major Requirements modules, and will continue to be offered as a required course, part of the ACT degree only. STAT 210 will be offered as a Level 4 module and will be renamed to “Statistics with R”. The gap created in the number of Level-5 modules will be filled by CSC340: Artificial Intelligence. CSC340 was offered as a Free Elective for the last two years and will become a Major requirement from this academic year. Taking into consideration the great breakthrough of AI applications in every sector as well as the strong interest of our students in the field, either by enrolling in the specific module or by choosing an AI-related topic for their thesis, we believe that this module will enhance our curriculum.

Under the same scope, two additional courses are proposed to be included in the Free Elective modules list (as non-OU offerings):

- CSC 345: Machine Learning and applications of Deep Neural Networks
- CSC 360:Data Science

At the same time, CSC 323 will be removed both from the Major Elective modules list, as well as the curriculum of the Computer Science programme, as there has been no demand for it by students or faculty.

Moreover, a practicum module is also introduced as a Major Elective, giving our students the opportunity to get first-hand professional experience within an institution of their choice.
Taking into considerations the above mentioned modifications, the Major Elective modules list in Level 6 will contain the following modules:

- CSC 219: Video Game Design;
- CSC 330: Introduction to Mobile Robotics;
- CSC 333: Cisco Advanced LAN and WAN Design;
- CSC 442: Advanced DBMS.
- PRACTICUM 300: Practicum

Other actions with respect to the modules offered, include updates and refinements on the syllabi. Details per module are available through the syllabi attached as Annexes.

These additions will extend the students' options and will make our degree aligned with the current trends in the area of Artificial Intelligence, providing our graduates with the necessary skills to be competent in the market.

Annexe 1: Curriculum map

Annexe 2: Curriculum mapping against the apprenticeship standard or framework (delete if not required.)

Annexe 3: Notes on completing the OU programme specification template

Annexe 4: Programme Flowchart

Annexe 5: Assessment Mapping

Annexe 1 - Curriculum map

This table indicates which study units assume responsibility for delivering (shaded) and assessing (✔) particular programme learning outcomes.

Level	Study module/unit	Programme outcomes																					
		A 1	A 2	A 3	A 4		B 1	B 2	B 3	B 4	B 5	B 6		C 1	C 2	C 3	C 4		D 1	D 2	D 3	D 4	
4	**CSC 105 -** Structured Programming	✔	✔	✔			✔	✔	✔		✔			✔	✔					✔	✔		
	CSC 106 - Object Oriented Programming	✔	✔	✔			✔	✔	✔		✔			✔	✔					✔	✔	✔	
	CSC 205 - Business Data Management	✔	✔	✔	✔		✔				✔	✔			✔		✔		✔		✔	✔	
	CSC 215 - Data Structures	✔	✔	✔	✔			✔	✔		✔				✔		✔		✔	✔		✔	
	CSC 230 - Systems Programming	✔	✔	✔			✔	✔		✔		✔		✔	✔		✔		✔	✔		✔	
	MATH 120 - Calculus I	✔	✔						✔		✔				✔					✔		✔	
	STAT 210 - Statistics with R	✔	✔						✔						✔					✔		✔	
	Business Elective	✔	✔				✔	✔			✔	✔					✔			✔		✔	

		Programme outcomes

Level	Study module/unit	A 1	A 2	A 3	A 4	A 5	B 1	B 2	B 3	B 4	B 5	B 6	B 7	C 1	C 2	C 3	C 4	C 5	C 6	D 1	D 2	D 3	D 4	D 5	D 6
5	**CSC 206 -** Web Development	✓	✓			✓	✓			✓			✓	✓			✓				✓	✓			
	CSC 300 - Mobile Application Development	✓		✓		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓
	CSC 306 - Advanced Web Development	✓	✓	✓		✓	✓		✓	✓			✓	✓		✓	✓		✓		✓		✓	✓	
	CSC 310 - Hardware & Computer Architecture	✓	✓		✓	✓	✓	✓				✓	✓	✓	✓		✓				✓	✓		✓	
	CSC 312 - Database Management Systems	✓		✓	✓	✓	✓	✓		✓			✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	
	CSC 340 - Artificial Intelligence	✓	✓		✓	✓	✓		✓		✓	✓	✓	✓	✓		✓			✓	✓	✓	✓	✓	
	CSC 450 - System Analysis & Design	✓	✓	✓		✓	✓	✓		✓		✓	✓	✓				✓	✓	✓			✓	✓	
	MATH 220 - Discrete Mathematics	✓	✓	✓	✓						✓				✓					✓	✓				

Level	Study module/unit	Programme outcomes																							
		A 1	A 2	A 3	A 4	A 5	B 1	B 2	B 3	B 4	B 5	B 6	B 7	C 1	C 2	C 3	C 4	C 5	C 6	D 1	D 2	D 3	D 4	D 5	D 6
6	**CSC 219** – Video Game Design		✓	✓					✓		✓		✓	✓	✓		✓	✓		✓		✓		✓	✓

	CSC 321 - Operating Systems		✓		✓	✓		✓		✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓				
	CSC 322 - Computer Networks I	✓		✓		✓	✓	✓			✓		✓	✓		✓	✓		✓	✓	✓		✓	✓		
	CSC 325 - Distributed Applications	✓	✓	✓	✓		✓	✓		✓			✓	✓	✓	✓	✓		✓	✓	✓		✓			
	CSC 330 – Introduction to Mobile Robotics		✓	✓	✓		✓		✓		✓			✓			✓	✓		✓		✓		✓	✓	
	CSC 333 – Computer Networks II	✓	✓		✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓		✓	✓	✓		✓	✓		
	CSC 412 - Object Oriented Design Patterns		✓	✓		✓	✓		✓		✓		✓	✓		✓	✓	✓	✓	✓	✓			✓	✓	
	CSC 421 - Computer Systems Security		✓		✓	✓		✓		✓	✓	✓		✓		✓		✓		✓	✓			✓	✓	
	CSC 422 – Advanced DBMS	✓	✓		✓		✓		✓	✓			✓	✓	✓		✓		✓	✓			✓	✓		
	PRAC 300 - Practicum		✓			✓					✓	✓					✓	✓	✓		✓	✓	✓	✓	✓	
	CSC 443 - Thesis I	✓		✓	✓			✓	✓	✓					✓	✓		✓		✓	✓		✓	✓		
	CSC 444 - Thesis II	✓	✓	✓		✓	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓		✓	✓	✓		

Annexe 2: Notes on completing programme specification templates

1 **-** This programme specification should be mapped against the learning outcomes detailed in module specifications.

2 – The expectations regarding student achievement and attributes described by the learning outcome in section 3 must be appropriate to the level of the award within the **QAA frameworks for HE qualifications**: http://www.qaa.ac.uk/AssuringStandardsAndQuality/Pages/default.aspx

3 – Learning outcomes must also reflect the detailed statements of graduate attributes set out in **QAA subject benchmark statements** that are relevant to the programme/award: http://www.qaa.ac.uk/AssuringStandardsAndQuality/subject-guidance/Pages/Subject-benchmark-statements.aspx

4 – In section 3, the learning and teaching methods deployed should enable the achievement of the full range of intended learning outcomes. Similarly, the choice of assessment methods in section 3 should enable students to demonstrate the achievement of related learning outcomes. Overall, assessment should cover the full range of learning outcomes.

5 - Where the programme contains validated **exit awards** (e.g. CertHE, DipHE, PGDip), learning outcomes must be clearly specified for each award.

6 - For programmes with distinctive study **routes or pathways** the specific rationale and learning outcomes for each route must be provided.

7 – Validated programmes delivered in **languages other then English** must have programme specifications both in English and the language of delivery.

Annexe 3: Detailed curriculum ACT students follow (OU validates and ACT own graduation requirements)

ACT Computer Science programme of Studies

The American College of Thessaloniki (ACT) is the tertiary division of ANATOLIA founded in 1886. It is accredited in the USA by the NEASC accrediting agency (New England Association of Schools and Colleges) to offer BSc and MSc degrees. Graduates of ACT receive both a U.K. and a U.S.A. degree.

Part of the USA accrediting requirements is that students complete 40 modules of 15 credit points each.

Below we are presenting the whole 4 years of study at ACT by level, year and semester.

- All modules in bold text are OU modules, while the ones in regular text are ACT degree only modules. Note: The OU degree requires 24 modules in total, while the ACT's own degree requires 40 modules.
- Modules in regular type are ACT modules required by the ACT degree. These are either general education requirements (GER) of ACT's own degree requirements.

Year 1					
Fall	**Grade**	**Spring I**	**Grade**	**Spring II**	**Grade**
CS105 - Structured Programming		**CCS106 - Object Oriented Programming**		ACT Module (GER 4)	
ACT Module (CS180 - Discrete Structures)		**MATH 120 - Calculus I**		ACT Module (GER 5)	
ACT Module (GER 1)		CSC107 - Multimedia toolkit			
ACT Module (GER 2)		ACT Module (GER 3)			
Year 2					
Fall	**Grade**	**Spring I**	**Grade**	**Spring II**	**Grade**
CSC205 - Business Data Management		**CSC312 - Database Management Systems**		**CSC450 - System Analysis & Design**	
CSC215 - Data Structures & Algorithms		**CSC230 - Systems Programming**		ACT Module (FE2)	
Business Elective (ECON or MRKT or ACC 101)		**STAT210 - Introductory Statistics with R**			
ACT Module (FE1)		ACT Module (GER 6)			
Year 3					
Fall	**Grade**	**Spring I**	**Grade**	**Spring II**	**Grade**
CSC310 - Hardware & Computer Architecture		**MATH 220 - Discrete Mathematics**		**CSC300 - Mobile Application Development**	
CSC206 - Web Development		**CSC306 - Advanced Web Development**		**CSC325 - Distributed Applications**	
CSC340 - Artificial Intelligence		ACT Module (FE3)			
ACT Module (GER 7)		ACT Module (FE4)			
Year 4					
Fall	**Grade**	**Spring I**	**Grade**	**Spring II**	**Grade**
CSC321 - Operating Systems		**CSC322 - Computer Networks I**		**CSC421 - Computer Systems Security**	
CSC412 - Object Oriented Design Patterns		**CSC444 - Thesis II**		ACT Module (GER9)	
Major Elective		ACT Module (GER8)			
CSC433 - Thesis I		ACT Module (FE5)			

Major Electives List (Any 3 of these required for the OU degree - Level 6)	GER
Computer Science 219 - Video Game Design	ENG 101 - English I
Computer Science 330 - Introduction to Mobile Robotics	ENG 102 - English II
Computer Science 333 – Computer Networks II	ENG 204 - Business English
Computer Science 422 - Advanced DBMS	PHIL 101 - Philosophy
PRAC 300 - Practicum	PHIL 203- Ethics
	POL 101 -Politics
	HIS 120 - History
	SOC/PSY/ANTH 101- Social Science
	Natural Science
	ART/ENG/MUS 120, Art or Literature

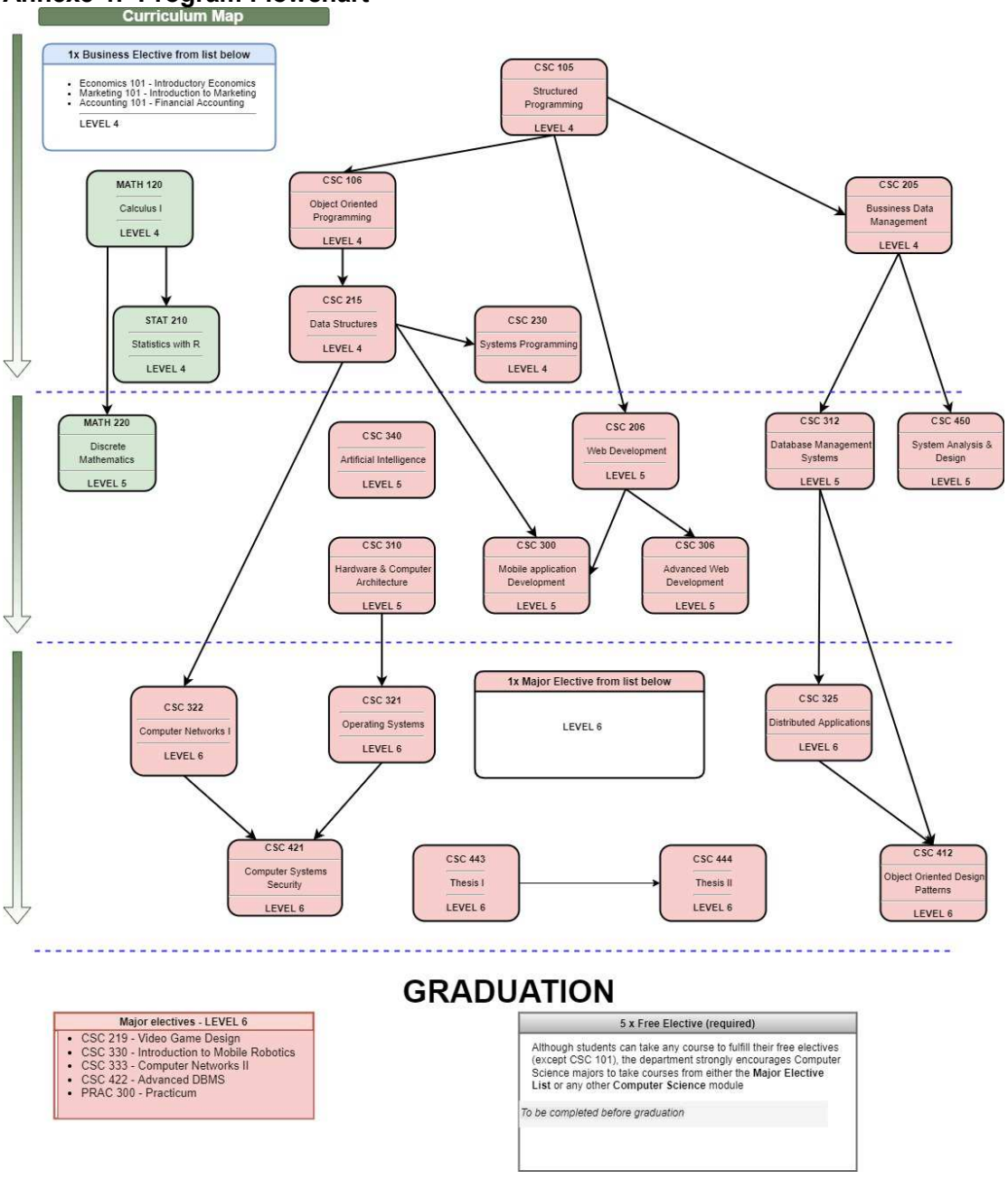
ACT Degree - General Education Requirements (GER)

All ACT students are required to take a common general education curriculum consisting of 14 courses (42 semester hours) taken optimally in semesters one through five. The General Education Requirements (GERs) are coordinated across divisions and disciplines by the Academic Council with key input from faculty at the division level. The GERs are still placed into three main categories, the Arts and Humanities (six courses, including Freshman English), the Sciences, and the Social Sciences (cf. Reflective Essay on Educational Effectiveness). The list of requirements is published in a number of official documents and ACT's website.

As a mechanism to implement and support student learning outcomes at the institution and program levels, the GER courses are aligned with all academic programs to provide not only breadth of knowledge of the disciplines directly relevant to specific majors but also a number of transferrable skills with a professionally-oriented dimension. In addition to developing communication and digital literacy skills, the GER curriculum emphasizes critical thinking and problem solving, quantitative reasoning, civic engagement, conflict resolution, creative expression and ethical integrity. With its solid liberal arts underpinning, the GER curriculum enriches students' educational experiences as they are also exposed to a range of viewpoints and debates that are part of current public discourse.

Student work evidences progression from year to year in terms of breadth and depth of knowledge, ability to select and employ appropriate methodologies to analyse empirical data, and ability to construct a cogent argument on a given topic. At the program level, curricula maps currently reflect more explicitly the skills, knowledge and understanding of all major requirements at each of the three levels taught and at the overall program level. Consequently, teaching, learning and assessment strategies have been clearly outlined to effect: 1) the acquisition of a broad knowledge base and a range of skills in the respective discipline (Level 4), 2) the increased analytical demands, evaluation of information and command of specialized skills in the respective discipline (Level 5), and 3) the critical review, consolidation and synthetic application of knowledge acquisition in the respective discipline (Level 6).

Annexe 4: Program Flowchart



Annexe 5: Assessment Mapping

LEVEL 4 Modules

Course	Assessments	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
	Midterm Exam					X	X						
	Course Project											X	
CSC 105	Final Exam												X
	Midterm Exam					X	X						
	SW Development Project											X	
CSC 106	Final Exam												X
	Midterm Project					X	X						
	Quiz set		X		X		X			X			
	Final Project												X
CSC 205	Final Exam												X
	Midterm Exam					X	X						
	Course Project											X	X
CSC 215	Final Exam												X
	Midterm Exam					X	X						
	Course Project										X		
CSC 230	Final Exam												X
	Quiz set			X					X		X		
	Midterm Exam					X	X						
MATH 120	Final Exam												X

	Quiz set			X		X			X	X			
	Term Project											X	
STAT 210	Final Exam												X

LEVEL 5 Modules

Course	Assessments	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
	Midterm Exam					X	X	X					
	Final Exam											X	
CSC 206	Final Project												X
	Midterm Exam					X	X						
	Final Project											X	
CSC 300	Final Exam												X
	Midterm Exam					X	X						
	Final Project											X	X
CSC 306	Final Exam												X
	Midterm Exam						X	X					
	Course Project										X		
CSC 310	Final Exam												X
	Quiz Set			X			X			X			
	Term Project										X	X	
	Research Project										X	X	
CSC 312	Final Exam												X

	Midterm Exam					X	X							
	Course Project										X			
CSC 340	Final Exam												X	
	Quiz Set			X			X			X				
	Research Project											X		
CSC 450	Term Project												X	
	Quiz Set		X		X		X		X		X			
	Midterm Exam							X						
	Final Exam												X	
MATH 220	Final Project											X		

LEVEL 6 Modules

Course	Assessments	**Week 1**	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
CSC 321	Weekly Assessments		X		X		X		X		X		
	Term Project											X	
CSC 322	Quiz			X									
	Midterm Exam					X	X						
	Research Peer Review									X			
	Final Exam												X
CSC 325	Quiz Set			X			X		X				
	Research Project						X	X					
	Final Project											X	X

	Final Exam												X
CSC 412	SW Development Project											X	
	Final Theory Exam												X
	Final Development Exam												X
CSC 421	Quiz Set		X		X		X		X		X		
	Final Project												X
CSC 443	Project proposal document											X	
	Project proposal poster											X	
	Project Proposal slide presentation											X	
CSC 444	Thesis document											X	
	Thesis poster											X	
	Thesis slide presentation											X	

Note: Shaded cells represent assessment's whose date is determined after taking into consideration students' overall workload